

REMARKS

Claims 13, 14, 16, and 18 have been amended for clarification purposes only and without the addition of new matter. Claims 20-21 are newly added. After entry of this Amendment, Claims 6-10 and 13-21 are pending in the patent application, of which claims 6-10 are withdrawn from examination. Reconsideration and allowance of the present patent application based on the foregoing amendments and following remarks are respectfully requested.

CLAIM OBJECTIONS

Claims 14-17 were objected because of the informality of "said recess" not being sufficiently clear. Claims 14 and 16 have been amended to correct the informalities and define "said cylindrical recess" as recited in claim 14. Thus Applicant respectfully submits that the objection be withdrawn.

REJECTIONS UNDER 35 U.S.C. §102

Claims 18 and 19 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent no. 4,470,330 to Lindell (hereinafter "Lindell"). The rejection is respectfully traversed.

Independent claim 18 positively recites a tool housing comprising, *inter alia*, a solid base element with a horizontally extending circular recess for receiving said fixed crosscutting tool; said recess having a supporting surface with support material for withstanding impact acting in a transverse direction on said fixed crosscutting tool, the supporting surface being curved and having a radius; and wherein, in the direction of impact, a material thickness of said solid base element measured from said supporting surface to an upper end surface of said base element is greater than a transverse material thickness of said base element, and wherein said fixed crosscutting tool has curved edge surfaces that are fitted into said recess of said base element, said curved edge surfaces having a substantially similar radius as said recess to assist in alignment of said tool device. Applicant respectfully submits that Lindell does not teach each and every element of claims 18 and 19, including the features noted above.

Lindell discloses a tooling assembly with a mechanical impact press including a pair of die blocks 26, 27 for cutting rods, bars, etc. The die blocks 26, 27 are supported by housing 25. A reciprocating cam 20 is also guided in the housing 25 between a first and a second position, such that bores that are out of alignment may be restored. Die block 26

includes an impact means 30 for being impacted by the ram 20, such that, during use, ram 20 impacts block 30 at a high velocity and causes die blocks 26, 27 to move relatively to each other. *See, e.g.*, Lindell at column 2, lines 40-54, column 4, lines 21-24, and Figures 2, 3, and 5.

However, the cited portions of Lindell fail to disclose, teach, or suggest a solid base element with a horizontally extending circular recess for receiving a fixed crosscutting tool. The cited portions of Lindell also fail to disclose or teach the circular recess having a supporting surface with support material for withstanding impact acting in a transverse direction on the fixed crosscutting tool, the supporting surface being curved and having a radius, as recited in claim 18. In fact, none of the cited portions of Lindell discuss a circular recess in a solid base element including support material for withstanding impact in a transverse direction.

For example, the present application describes a cylindrical recess 219 with curved supporting surface 218 of radius R provided in the base element 21 for receiving the fixed crosscutting tool 50. *See* original specification at page 5, lines 33-37, page 7, lines 17-23, and Figure 5. **The cylindrical recess 219 and its curved surface 218 are advantageous because such a configuration assists in allowing tools to be automatically centered in the lateral direction when the applied to the tool housing in the vertical direction.** *See* original specification at page 2, lines 4-9. Further advantages of the cylindrical recess 219 and curved supporting surface 218 are also discussed below.

The Office Action states that Figures 2 and 3 of Lindell show a recess into which tool 27 is received, and that the recess has a surface against which 27 abuts. However, Applicant respectfully submits that Lindell fails to describe or suggest each and every element as recited in claim 18. At most, the cited portions of Lindell illustrate a space 56 between the damper 53, 55 and the die block 26, and an area which receives die blocks 26, 27. *See, e.g.*, Lindell at Figures 2 and 3 and column 3, lines 50-53. The cited portions of Lindell, however, do not disclose or anticipate a circular recess as provided in claim 18. The cited portions of Lindell also do not disclose or anticipate a supporting surface with support material for withstanding impact acting in a transverse direction on the fixed crosscutting tool, the supporting surface being curved and having a radius as recited in claim 18.

Additionally, the cited portions of Lindell fail to disclose, teach, or suggest a “material thickness of said solid base element measured from said supporting surface to an upper end surface of said base element is greater than a transverse material thickness of said base element.” The Examiner notes areas in elements as illustrated in Figures 2 and 3.

However, no where in Lindell are the thicknesses of a solid base element disclosed, nor is it anticipated to provide the measurement of the solid base element as recited in claim 18.

Applicant respectfully submits that, even if the noted areas of the elements in Figures 2 and 3 were deemed as showing such thicknesses, which Applicant does not concede, the cited portions of Lindell would still fail to disclose or suggest each and every element as recited in claim 18.

For example, the cited portions of Lindell further fail to disclose a fixed crosscutting tool having curved edge surfaces that are fitted into the recess, where the "curved edge surfaces have a substantially similar radius as the recess to assist in alignment of said tool device." Rather, the cited portions of Lindell provide die blocks 26, 27 of linear configuration. *See* Lindell at Figure 5.

As previously noted, the cylindrical recess 219 and curved surface 218 are advantageous because such a configuration assists in allowing tools to be automatically centered in the lateral direction when the applied to the tool housing in the vertical direction. **The curved edge surfaces 53A-53D of the fixed crosscutting tool 50 in the present invention also assist in aligning the tool device. More specifically, the curved edge surfaces 53A-53D are provided with a radius R that is substantially equal to the radius R of the surfaces 218 of the cylindrical recess 219 such that an exact positioning and alignment of the tool (i.e., the centre line C for receiving the wire) will be obtained.** *See* present patent application at page 6, line 34 - page 7, line 23. The combination of each of the elements, including the surfaces and their radius R, as recited in claim 18 also assist in holding the fixed crosscutting tool 50 in place during an impact or force acted thereon. **Furthermore, by providing fixed crosscutting tool 50 with curved edge surfaces 53A-53D, the axial position of the fixed crosscutting tool 50 may be easily adjusted or altered [by adjusting a screw 63 and sleeve 62] to expose another surface.** *See* original specification at page 9, line 33 – page 10, line 6, page 10, lines 20-28, and Figure 5. The die blocks 26, 27 of Lindell, however, would require complete removal of tubular body 38 and ring clamp 40 to axially adjust the positions of the die blocks 26 as their linear edge surfaces would not allow for easy rotation or positioning. *See* Lindell at Figure 2.

The cited portions of Lindell fail to disclose or anticipate at least the following features - a solid base element with a circular recess, a supporting surface being curved and having a radius, and a fixed crosscutting tool having curved edge surfaces to assist in alignment of the tool device - as recited in claim 18.

Thus, based on at least the foregoing, reconsideration and withdrawal of the §102(b) rejection, and allowance of claim 18 is respectfully requested. Claim 19 is patentable over the cited portions of Lindell at least by virtue of its dependency from claim 18, and for the additional features recited therein, and thus is also considered allowable.

REJECTIONS UNDER 35 U.S.C. §103

Claims 13-17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lindell. The rejection is respectfully traversed.

Independent claim 13 recites a tool housing comprising, *inter alia*, the tool housing has at least two supporting surfaces for positioning said movable crosscutting tool, said supporting surfaces being curved and having a same radius, wherein a recess is constructed and arranged between said curved supporting surfaces to provide space for movement of said striking piston, wherein the tool housing has at least two supporting surfaces for positioning said movable crosscutting tool, said supporting surfaces being curved and having a same radius; wherein a recess is constructed and arranged between said curved supporting surfaces to provide space for movement of said striking piston therein, and wherein said movable crosscutting tool has curved edge surfaces in contact with said curved supporting surfaces of said tool housing, said curved edge surfaces having a substantially similar radius as said curved supporting surfaces to assist in alignment of said tool device. Applicant respectfully submits that Lindell fails to disclose, teach, or suggest at least these features.

The Office Action alleges that Figure 3 shows a “recess” between the surfaces of 32 through which 30 extends as being equivalent to the recess as claimed in the present invention. However, Applicant respectfully disagrees. Specifically, claim 13 recites “a recess constructed and arranged between said curved supporting surfaces to provide space for movement of said striking piston therein.” The claim also recites that the curved supporting surfaces are for positioning the movable cross cutting tool. As conceded by the Examiner, the impact means 30 of die block 26 extends into the “recess” between the surfaces of 32 and 30. Thus, even if the surfaces between 30 and 32 could be considered as supporting the impact means 30 of die block 26, which Applicant does not concede, the surfaces of Lindell would not “provide space for movement of said striking piston therein.” More specifically, it is noted that the ram 20 of Lindell is designed to impact block 30. *See, e.g.*, Lindell at column 2, lines 40-54 and column 4, lines 21-24, and Figures 2 and 3. Thus, the ram 20 can not move into the space or recess between the surfaces of 32 through which 30 extends.

Also, referring to Figure 3 of Lindell, the space in frame 16 for receiving part of impact means 30 does not provide a recess as recited in claim 13. The space in frame 16 does not provide at least two supporting surfaces for positioning the movable crosscutting tool (noted as the die block 26 of Lindell). It also does not provide supporting surfaces that are curved and have a same radius, *inter alia* (further discussed below).

Also, as noted by the Examiner on pages 5 and 6 of the Office Action, "Lindell lacks the tool housing having at least two curved supporting surfaces for positioning of the moveable crosscutting tool, which supporting surfaces have the same radius, and in that between the supporting surfaces is the recess." The Examiner also notes that Lindell "lacks the cylindrical recess in the housing having the same centre line and the same radius as the supporting surfaces." Thus, *as conceded*, Lindell fails to disclose or anticipate the curved supporting surfaces and recess as disclosed in at least claim 13.

The Examiner alleges that the Applicant "has not disclosed that having such surfaces in a curved configuration solves any stated problem or is for any particular purpose" and contends that the device of Lindell "would perform equally well." Applicant respectfully traverses the Examiner's statements. Applicant also respectfully submits that the use a curved configuration for such surfaces, as suggested by the Examiner, would not have been obvious.

Applicant submits that having such surfaces as claimed in a curved configuration provides several advantages. First, claim 13 recites that the curved edge surfaces [of said movable crosscutting tool] have a substantially similar radius as the curved supporting surfaces [of the tool housing] to assist in alignment of the tool device. Second, as noted in the Amendment dated October 24, 2007, Applicant respectfully directs the Examiner to the specification, wherein it is clearly noted that the use of curved surfaces as recited in claim 13 increases precision in terms of position, alignment, and accuracy, for example. *See, e.g.*, original specification at page 2, lines 4-9 and page 6, line 34-page 7, line 15.

More specifically, it is noted in the present application that the movable crosscutting tool 40 has curved surfaces 43A-43D with a radius R, and that "the curved surfaces 43A-43D are used for positioning/alignment of the crosscutting tool 40 in the tool housing 20" thus providing "very high precision with respect to alignment, i.e., the arrangement of the through-hole 41 along a predetermined axis C through the tool, can easily be obtained." *See, e.g.*, original specification at page 8, lines 13-27.

Additionally, **providing movable crosscutting tool 40 with curved edge surfaces 43A-43D is advantageous because the symmetrical shape of the tool 40 (as well as fixed**

crosscutting tool 50) allows for rotation after a period of use (i.e., axial rotation), so that another striking surface 44A-44D of the movable crosscutting tool 40 may be exposed. Thus, the axial position of the movable crosscutting tool 40 (and fixed crosscutting tool 50) are easily adjusted or altered. See original specification at page 9, line 33 – page 10, line 6, page 10, lines 20-28, and Figure 5. The die blocks 26, 27 of Lindell, however, would require complete removal of tubular body 38 and ring clamp 40 to axially adjust the positions of the die blocks 26 as their linear edge surfaces would not allow for easy rotation or positioning. See Lindell at Figure 2.

Thus, based on foregoing, Applicant respectfully submits that the Examiner's statement that such "a curved configuration [does not] solve any stated problem or is for any particular purpose" is *incorrect*. Furthermore, even if the noted portions of Lindell could be curved surfaces, which Applicant does not concede, Lindell would fail to disclose or anticipate at least a recess and a movable crosscutting tool as recited in claim 13.

For at least the above-identified reasons, Applicant submits that Lindell fails to disclose, teach, or suggest the features of claim 13. Accordingly, withdrawal of the rejection of claim 13 under 35 U.S.C. §103(a) is respectfully requested.

Claims 14-17 are patentable over the cited portions of Lindell at least by virtue of their dependency from claim 13, and for the additional features recited therein.

NEW CLAIMS

Claims 20-21 have been added to further recites features of the present invention. Claim 20 depends from claim 13 and thus is considered patentable over the cited portions of Lindell at least by virtue of its dependency from claim 13, and for the additional features recited therein. Claim 21 depends from claim 18 and thus is considered patentable over the cited portions of Lindell at least by virtue of its dependency from claim 18, and for the additional features recited therein.

All matters having been addressed and in view of the foregoing, Applicant respectfully requests reconsideration of this application, and the immediate allowance of all pending claims.

DAHLBERG -- 10/510,124
Attorney Docket: 522208-0000024

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Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP



E.R. HERNANDEZ
Reg. No. 47,641
Tel No. 703.770.7788

JACLYN A. SCHADE
Reg. No. 50569
Tel. No. 703.770.7553
Fax No. 703.770.7901

March 21, 2008
ERH/JAS
P.O. Box 10500
McLean, VA 22102
(703) 770-7900